

Opioid Overdose Prevention: Using Data to Drive Action

Drug overdoses have dramatically increased over the last two decades, and deaths from overdose have increased sharply since 2013. In 2016, more than 63,000 Americans died from drug overdoses. Of those overdose deaths, around 2 in 3 have involved a prescription or illicit opioid.

Timely, high-quality data are critical to help public health officials effectively respond to the opioid overdose epidemic. Data help officials understand the extent of the problem, focus resources where they are needed most, and evaluate the success of prevention and response efforts.

Enhanced State Opioid Overdose Surveillance

The Centers for Disease Control and Prevention (CDC) is funding 32 states and the District of Columbia to improve data collection efforts on opioid-involved overdoses through the Enhanced State Opioid Overdose Surveillance (ESOOS) program. This program helps states to:

- **Establish an early warning system** by using data from emergency departments (ED) and/or emergency medical services (EMS) to detect increases or decreases in nonfatal opioid overdoses
- **Integrate data from death certificates and unique medical examiner and coroner investigations**, including toxicology reports, on opioid overdose deaths to track multi-state trends or focus on overdoses in a single county to inform local prevention efforts. These data are compiled through the State Unintentional Drug Overdose Report System (SUDORS)
- **Share findings with state and national stakeholders** to inform their opioid overdose prevention and response efforts



OBJECTIVE

Improve the timeliness of fatal and nonfatal opioid overdose data for action and response.

SUPPORTING STATES

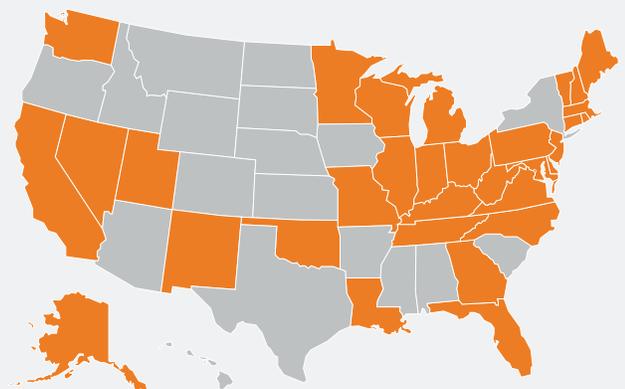
\$11.8 million, with awards ranging from \$233,000 to \$626,000

12 states from
9/1/2016 to 8/31/2019

20 states and DC from
9/1/2017 to 8/31/2019

Current funding for 33 locations:

AK, CA, CT, DE, DC, FL, GA, KY, IL, IN,
LA, MA, MD, ME, MI, MN, MO, NV,
NH, NJ, NC, NM, OH, OK, PA, RI, TN,
UT, VT, VA, WA, WV, WI



■ FUNDED ■ NOT FUNDED



**Centers for Disease
Control and Prevention**
National Center for Injury
Prevention and Control

NEW DATA: REPORTING ON NONFATAL AND FATAL OVERDOSE

Every four months, ESOOS-funded states report overdose data about ED visits and EMS transports to CDC, including:

- Syndromic or hospital billing data to identify all drug, opioid, and/or heroin overdoses that presented in EDs
- Data on EMS transports, such as whether naloxone was administered and, if so, the number of doses
- Demographic characteristics of those who overdosed, such as sex, age, race/ethnicity, and county of residence



Every six months, ESOOS-funded states report critical death-scene investigation information on overdose deaths through SUDORS, including:

- Type of opioid (e.g., prescription, heroin, or illicitly manufactured fentanyl) from toxicology reports
- Evidence of injection drug use (e.g., needles on scene, track marks on decedent, tourniquet) or other illicit drug use (e.g., drug paraphernalia, powders, crystal substances)
- Whether someone administered naloxone during the emergency medical response and, if so, who
- Evidence that the opioid overdose progressed rapidly
- Recent release from an institution, such as prison
- History of mental health disorders
- History of substance use disorders
- County where fatal overdose occurred

EARLY PROGRAM SUCCESS

Applying CDC's data and surveillance expertise in partnership with funded states is helping to improve the quality and timeliness of opioid overdose data and to inform response.

Identifying dangers of illicitly manufactured fentanyl with SUDORS overdose death data

- Quantified the emerging problem of fentanyl analogs by documenting 700 deaths involving fentanyl analogs across 10 of the ESOOS states from July to December 2016, with nearly 400 deaths involving carfentanil, a powerful opioid used to treat large animals. CDC increased funding in 2017 to ESOOS states to improve toxicologic testing for fentanyl analogs.
- Found that more than 50 percent of overdose deaths in 10 states now involve fentanyl, predominantly illicitly made fentanyl.

Developing an early warning system for drug overdoses with ED and EMS data

- Defined how to effectively track heroin and opioid overdoses and collaborated with states to refine definitions for their own use.
- Reported findings on opioid overdoses treated in EDs in 16 of the ESOOS states from July 2016 through September 2017, which showed that ED visits for opioid overdoses rose 30 percent in all parts of the United States.



**Centers for Disease
Control and Prevention**
National Center for Injury
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► [Learn about opioid overdose prevention:
www.cdc.gov/drugoverdose](https://www.cdc.gov/drugoverdose)



Operational & Clinical Data Monitoring w/ Fire Operations Analytics Module and FirstPass

FirstWatch Solutions, Inc.
 1930 Palomar Point Way, Suite 101
 Carlsbad, California 92008 USA
 Phone: 760-943-9123 Fax: 760-268-0922
 Atten: Phil Davis, Regional Manager (Ph Ext 267)

New System Quote

Customer Information:

Name: **Brian Frankel, Deputy Chief of EMS**
 Organization: **Stafford County Fire & Rescue Department**
 Address: **1225 Courthouse Road**
 City, ST Zip: **Stafford, VA 22554**
 Phone: **(540) 783-9742**
 Email: **BFrankel@staffordcountyva.gov**

Quote Information:

Date: 3/6/2023
 Expiration Date: 9/2/2023
 Call Volume: 16,000
 Population: 150,000

Qty	Description	Unit Price	Item Total
FirstWatch System (FW) w/ Primary Data Source 1 (DS1) - Infor CAD			
1	(DS1) System License - CAD	\$20,698.00	\$20,698.00
1	(DS1) Annual Support & Maintenance	\$4,553.56	\$4,553.56
1	(DS1) Data Source Integration	\$7,500.00	\$7,500.00
1	Installation / Configuration	\$2,500.00	\$2,500.00
1	Training / Trigger Consultation / Project Mgmt.	\$9,500.00	\$9,500.00
		Sub-total	\$44,751.56
Data Source 2 (DS2) - ESO ePCR			
1	(DS2) System License - ePCR	\$14,489.00	\$14,489.00
1	(DS2) Annual Support & Maintenance	\$3,187.58	\$3,187.58
1	(DS2) Data Source Integration	\$7,500.00	\$7,500.00
		Sub-total	\$25,176.58
Data Source 3 (DS3) - ESO FRMS			
1	(DS31) System License - RMS	\$14,489.00	\$14,489.00
1	(DS3) Annual Support & Maintenance	\$3,187.58	\$3,187.58
1	(DS3) Data Source Integration	\$7,500.00	\$0.00
		Sub-total	\$17,676.58
Triggers (ASM only will be billed on up to a maximum of 10 Triggers over the included 20)			
20	Standard FirstWatch Triggers (Included with new system)	\$0	\$0
10	Standard FirstWatch Triggers (\$4,000 Value - License fee will be waived)	\$400.00	\$0
10	Standard FirstWatch Triggers Annual Support & Maintenance (Billed as needed)	\$200.00	\$0
		Sub-total	\$0.00
Interactive Data Visualization Module (IDV)			
1	Included IDV Module (Included with new system - To be added to any single Trigger)	\$0	\$0
		Sub-total	\$0.00
FirstWatch Mobile App			
1	Included FirstWatch Module App System License (Avail. for iOS and Android Devices)	\$0	\$0
		Sub-total	\$0.00
Performance Plus Module (PP)			
1	Performance Plus Module (100 Sub-Triggers per Module)	\$2,500.00	\$0.00
1	Performance Plus Annual Support & Maintenance	\$550.00	\$550.00
		Sub-total	\$550.00
FirstPass Clinical QI Module			
1	FirstPass Module - Standard - Single ePCR & Agency	\$30,000.00	\$30,000.00
1	FirstPass Module Annual Support & Maintenance	\$6,600.00	\$6,600.00
		Sub-total	\$36,600.00
Total of Items Above			\$124,754.72

Payment of All Year One Fees

New System (Payment of All Year One Fees) - Total:	\$124,754.72
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Estimated Annual Support & Maintenance beyond Year 1 (not applicable to Software as a Service option above)

Estimated Annual Support & Maintenance for Year 2 (based on a 3% annual increase):	\$18,621.08
Estimated Annual Support & Maintenance for Year 3 (based on a 3% annual increase):	\$19,179.71

Important Project Notes

NOTE 1: If Customer's data from CAD, ePCR, RMS (or other system(s)) is to be provided to FirstWatch via another Vendors Hosted Environment, fees payable to that Vendor (not reflected/included in this project quote) may be required. FirstWatch recommends that the Customer learn about options and costs associated with their Hosted Vendors approach & process - as fees will likely be required by Vendor to establish data feed/connection into FirstWatch. If customer plans to switch Vendor for CAD, ePCR or RMS (other data system) from existing data interface feeding into FirstWatch, in addition to the Data Source Interface fee of \$7,500, additional work & fees will be required to convert specialized system enhancement modules such as FirstPass, OCU as well as Complex Triggers & Customized Reports, all of which can be Price upon Request (in advance). Also, when Customer selects a new Vendor (for CAD, ePCR or RMS (other data system)), FirstWatch highly recommends a minimum of 90-day advanced notice so as to provide quote for work required, as well as to allow FirstWatch enough lead time to plan conversion work prior to new system cut-over. Additional Details about Proposed Project and Data Source Interfaces and Changes are outlined on Page 2. All Fees Quoted are in US Dollars (USD).

Please see Page 2 for Additional Information

Thank you for the opportunity to present this quote.

To authorize FirstWatch to proceed with proposed enhancements, please send PO or signed copy (all pages) back to:
 Fax - Sales @ (760) 268-0922 or Email - pdavis@firstwatch.net

Accepted: _____
 Title: _____
 Date: _____

Stafford County Fire & Rescue Department 'New System Quote' - 03/06/2023 - Additional Information

General Project Information

FirstWatch has worked diligently to keep pricing 'fair and reasonable,' as well as in developing a REMOTE approach to FirstWatch software sales, presentation, deployment, installation, data interface, system configuration and training; as such we have NOT included any fees for travel associated with this project. If travel is requested / required by customer, customer will be asked to pay for all travel-related expenses (e.g., transportation, accommodations, food) incurred by FirstWatch at the request of customer and approved by customer in advance, for Software-related services such as on-site installation, training, customization, integration, support and maintenance.

This quotation is valid for 180 days from creation as noted on the top of page 1. For additional information or questions please contact the FirstWatch Representative also noted on the top of page 1.

Payment Option - New System Standard Purchase

This traditional software license payment program option includes all Year 1 project fees, with a typical project payment breakdown based upon the following project milestones: 50% of all Year 1 project fees payable at software license execution; 40% payable at system installation & Go Live of the Base FirstWatch System (typically DS1 & All Calls Trigger for DS1) and remaining balance (10%) payable at Acceptance of Base System functionality.

Payment Option - Software as a Service (Monthly Subscription)

Software as a Service (SaaS) / Monthly Subscription Fee acquisition option offers a flexible, (pay-over-time style) payment program which offers a lower upfront investment requirement and is designed to help "operationalize" FirstWatch deployment costs over a number of years (not just Year 1). This SaaS payment program requires one initial payment which includes (all fees to install, configure, train and project manage the quoted products and services) and offers a monthly payment plan going forward. The fixed, ongoing monthly subscription payment includes all FirstWatch fees (including recurring annual support and maintenance).

FirstWatch - Primary Data Source #1 (Infor CAD)

Preliminary project pricing (in US Dollars, which does not include taxes or externally imposed fees), as outlined on page 1, is for a single FirstWatch remote-client system installed on client provided PC / Server / Virtual Server (configured to FirstWatch specifications and integrated with Data Source's outlined on page 1) using ODBC or client provided data push configuration to move data to the FirstWatch Data Centers. Preliminary pricing is based on customer provided annual call volume / annual patient encounters noted on page 1 (plus/minus 20%).

Primary FirstWatch System Data Source (DS1) is the first data source integration/interface to be made, regardless of type (CAD, ePCR, RMS, etc.). All Data Source Interfaces proposed on page 1 (DS1, DS2, DS3, etc.) are priced based on data availability via the same network and using the standard FirstWatch approach. Configurations outside standard FirstWatch approach (as outlined above) may require additional costs and may not include all functionality. All Data Analysis (including GIS mapping) is done within the FirstWatch Data Centers and is based on analyzing a subset of data elements present within client's database and will likely not contain every available data element. Interface will commonly include information related to location, times, symptoms, treatment and responses, but may include other available elements.

Unless quoted differently, this FirstWatch thin-client deployment includes: Twenty (20) Regular FirstWatch Triggers. Default FirstWatch thin-client deployment also includes access for (50) Simultaneous users. Additional Triggers or Simultaneous User accounts may be purchased at anytime. Trigger and Simultaneous User account fees recur annually and will be billed as separate line item on Annual Maintenance and Support invoice.

FirstWatch Training & Trigger Consultation includes up to 10 hours of Remote (online) FirstWatch Training & Trigger Configuration / System Orientation sessions.

FirstWatch Enhancement Modules are NOT included with Standard FirstWatch and instead are priced separately (if needed) based upon customer request. FirstWatch Enhancement Modules require Standard FirstWatch deployment be in place first. FirstWatch Enhancement Modules may require additional Triggers (like Online Compliance Utility - OCU) and Triggers for FirstWatch Enhancement Modules will appear as a separate line item in the Additional Options & Enhancement Modules Section of Worksheet on Page 1, or elsewhere on FirstWatch System Enhancement Quotes. At this time, the following FirstWatch Enhancement Modules are offered as System Enhancements / Upgrades (and require additional fees initially and annually recurring support fees): Performance PLUS, FW FTP Data Mover, Online Compliance Utility (OCU), FirstPass (FP), Demand Analysis, EMS Transport (Hospital Status Dashboard tool, Patient Transfer of Care (TOC) tool, Resource Planner, Fire Operations & Accreditation Module (FOAM), Interactive Data Visualization (IDV), Billing Analytics Module (BAM) and Upgraded SQL Reporting Services tools, features, assistance or automated report distribution functionality.

Data Source Integration Services is the work to be performed to integrate the monitoring of the Infor CAD Data into the FirstWatch system includes the installation and configuration of the necessary FirstWatch applications services to query, compress, encrypt and securely transmit data packets through a secure connection - SSL/HTTPS to the FirstWatch Data Centers. The data will be made available through the FirstWatch web portal via FirstWatch Triggers and/or in the form of automated alerting where applicable.

FirstWatch - Data Source #2 (ESO ePCR)

This Data Source has a minimum prerequisite of a base FirstWatch system that includes Data Source #1. Should additional Triggers or customized Reports be needed for this Data Source or you need additional information, please notify the FirstWatch representative shown at the top of page 1.

This quote does not include allowance for any potential costs / fees (directly) payable to ESO in order for them to provide FirstWatch with a full and comprehensive data set which is required for FirstWatch to perform the quality monitoring expected from this ePCR Data Source. FirstWatch recommends that you discuss this project and any potential associated fees directly with ESO to fully understand their potential cost of this Data Source interface and ongoing process.

FirstWatch - Data Source #3 (ESO FRMS)

This Data Source has a minimum prerequisite of a base FirstWatch system that includes Data Source #1. Should additional Triggers or customized Reports be needed for this Data Source or you need additional information, please notify the FirstWatch representative shown at the top of page 1.

This quote does not include allowance for any potential costs / fees (directly) payable to ESO in order for them to provide FirstWatch with a full and comprehensive data set which is required for FirstWatch to perform the quality monitoring expected from this ePCR Data Source. FirstWatch recommends that you discuss this project and any potential associated fees directly with ESO to fully understand their potential cost of this Data Source interface and ongoing process.

FirstWatch - Standard Triggers

Standard FirstWatch triggers are defined as: existing (commercially available) FirstWatch trigger technology that does not require any custom programming. Regular triggers are based on existing functionality, related to existing data sources and data structures. Triggers requiring custom programming are considered non-standard or custom triggers and may have additional cost associated, which will be based on the estimated development efforts. Regular triggers are generally based on Syndromic Surveillance, Operational/Performance, or Situational Awareness monitoring. Details available upon request...or see Regular Trigger definition document for more details.

Performance PLUS

Performance PLUS (PP) is a FirstWatch System Enhancement Module and therefore requires a standard FirstWatch System deployment with a DS connection in place before PP can be deployed. The PP module offers granular views of FirstWatch Trigger criteria; for example performance measures by individual; crew, unit, station, zone, response area, beat or hospital. Each PP module offers 100 data points (slices); granular detail views of primary Trigger criteria. Alternately, some customers may find it easier to think of PP for a "primary / sub" Trigger approach.

FirstPass- w/ Standard Protocol, Clinical Triggers and Reports Bundle

FirstWatch System Enhancement: ADDING FirstPass (FP) enhancement module to existing FirstWatch Base System. Please NOTE: the FirstPass enhancement module requires a data source interface into ePCR data system. FirstPass is a smart queue based QA/QI tool which includes a Recommended Base Bundle of (6) Standardized FirstPass Protocols (included with enhancement module) for: STEMI, Stroke, Cardiac, Trauma, Airway and Universal. These protocols are designed to provide measures against predefined, evidence based quality metrics. While the initial 6 protocols included in the bundle are preconfigured, the customer agency will also have the ability to add or vary unique metrics specific to their locality. Report Development Hours for Standardized/Base FirstPass Reports are included in the Bundle pricing; and will be based upon the above Standardized/Base FirstPass Protocols. Future Reports may offer simple overviews on; Protocol Deviation within the context of overall system (or individual) performance, Benchmarking and Paramedic Scorecards - all developed against the Standardized Protocols in the Bundle. Additional FirstPass Protocols, Reports and Clinical Triggers can be added (at additional cost initially/annually) and will be priced upon request. Please see Regional Manager for additional information.

When customer has FirstWatch FirstPass enhancement module LIVE and switches to new ePCR system; a FirstPass Re-Configuration Fee of up to \$12,000 will be required to modify and validate FirstPass protocol tests and automated queue-based processes and FirstPass reports against customers new ePCR system data. This is in addition to a \$7,500 new Data Source Interface fee (for total of \$19,500).

Annual Support & Maintenance (ASM)

Annual Support recurs annually and includes: system enhancements, updates and patches, 24/7 urgent technical support, business hour support for routine issues and guidance with configuration of your FirstWatch System. Support fees increase annually. Annual Support fee increase is projected (for budget purposes) at 3% per year.

iii. For the **Mallinckrodt** Settlement:

Amount of direct distributions received during FY2023	\$15,102
Amount appropriated by the governing body in FY2023	N/A
FY2023 actual expenditures	N/A
FY2023 encumbered but not yet expended	N/A
FY 2023 remaining unspent and unencumbered balance	\$15,102